

**VA MEDICAL CENTER
PROVIDENCE, RHODE ISLAND****FACILITIES MANAGEMENT SERVICE
SOP POLICY MEMO 138-16
December 22, 2011****CRANES****1. PURPOSE**

The purpose of this memorandum is to establish procedures for the use of cranes at this facility. The procedures will be used to ensure that the lifting of loads above the ground surface is performed in a safe manner and fully informs facility staff of the details of the lift to be performed using a crane. This policy also defines responsibilities for these procedures.

2. POLICY

- a. It is the policy of Facilities Management Service that all work with cranes shall be performed in a manner in strict compliance with construction industry regulations of the Occupational Health and Safety Administration and with the safety guidelines and policies of the Department of Veterans Affairs.
- b. It is the policy of Facilities Management Service that employees and contractors be informed about specific details of crane operations when such crane use is proposed at this facility and that such information be provided to the facility staff by the crane user prior to use of a crane at this facility.
- c. It is the policy of the Providence VA Facilities Management Service that the requirements stated herein will be enforced.

3. DEFINITIONS

- a. *Crane Operator.* A person who has demonstrated that they are proficient in the operation of the various types of cranes. Certification may be provided by the employer or an accredited testing agency, such as the National Commission for the Certification of Crane Operators (NCCCO).
- b. *Competent Operator.* A crane operator who:
 1. Is capable of identifying existing and predictable hazards with regard to the particular crane being operated.
 2. Is capable of identifying existing and predictable hazards with regard to the hoisting operations being undertaken.
 3. Has the training and experience to properly set up and safely control all crane functions.

- c. *Competent Person.* Per OSHA, one who is capable of identifying existing and predictable hazards in the surroundings; is capable of identifying working conditions that are unsanitary, hazardous or dangerous to employees; and has authority to take prompt corrective measures to eliminate them.
- d. *Controlling Entity.* Contractor or other entity that is in actual control of a project. Could be the General Contractor, Construction Manager, Prime Contractor or the Owner, depending upon the level of control applied with regard to the selection, operation and maintenance of cranes.
- e. *Controlling Supervisor.* The individual who is directly responsible for crane operation maintenance at a particular project.
- f. *Critical Lift Plan.* A document that is used to plan crane lifts that have the potential for increased risk. A critical lift plan should detail the weight(s) and dimensions of the load to be hoisted; the path of travel of the load, including various height and clearance dimensions; the maximum radius or radii at which the load will be hoisted; and the exact configuration of the crane(s) to be used. Load charts for the make, model, serial number and configuration of the crane(s) shall be attached.
- g. *Maximum Intended Load.* The heaviest load that a crane's capacity chart shows it is capable of lifting in a given configuration and radius.
- h. *Qualified Person.* By possession of a recognized degree, certificate or professional standing or by extensive knowledge, training and experience, one who has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work or the project.
- i. *Types of Cranes.* Generally mobile cranes, such as crawler cranes, rough terrain cranes, truck cranes, boom trucks and the various other types of mobile cranes generally used on construction sites.

4. PROCEDURES

- a. OSHA requires a Competent Person to inspect all operational components of the crane on a daily basis. The Competent Person must have received training in the provisions of the OSHA Standard, be capable of understanding the hazards associated with the crane being used and have the authority from the employer to correct and abate any hazard associated with the crane.
- b. The Crane Operator *must* be certified in the operation of the crane. A certification is determined through a *written test* that the Crane Operator knows the information necessary for safe operation of the specific type of equipment the individual will operate; and the Crane Operator is able to read and locate relevant information in the equipment manual and other materials pertaining to the crane.
- c. A Signal Person shall be used for any crane operation. Each Signal Person should know and understand the type of signals used; be competent in the application of

the type of signals used; and have a basic understanding of crane operation and limitations, including the crane dynamics involved in swinging and stopping loads, and boom deflection from hoisting loads.

- d. After assembly on-site, the crane shall have a thorough inspection similar to an annual inspection. A Competent Person shall perform this inspection.
- e. The crane operator shall perform a daily inspection of the crane, including an operational check of all control mechanisms.
- f. A permit shall be obtained from Facilities Management Service Engineering Section by any party proposing to use a crane at this facility. The permit shall be submitted to the designated project manager of the Facilities Management Service Engineering Section and shall not be valid until signed by the project manager. The permit form to be used is at Attachment A to this memorandum.
- g. If any crane operation is determined to be a Critical Lift, the party submitting the crane permit shall include with the permit form a critical lift plan that is signed by a registered professional engineer.

5. RESPONSIBILITY

- a. The Chief, Facilities Management Service is responsible for the administration of the Crane program.
- b. The Project Manger is responsible for ensuring that contractor personnel are thoroughly familiar with and comply with this memorandum including the required use of the attached Crane Permit for all lifts.
- c. The Contractor is responsible for the following:
 - 1. Preparation and submittal to the Project Manager a completed Crane Permit Application with all required information.
 - 2. Provide adequate supervision of all hoisting operations.
 - 3. Ensure that the crane operator performs a daily inspection of the crane, including an operational check of all control mechanisms.
 - 4. Determine if the crane operation will be a “critical pick” as defined by the evaluation on the attached Crane Permit form.
 - 5. Determine, through verifiable methods, the weight(s) of items to be hoisted.
 - 6. Ensure that all parties involved know the weight(s) of the loads to be lifted
 - 7. Ensure that appropriate rigging equipment is available to handle the specified loads
 - 8. Ensure that a qualified rigger is assigned to inspect all rigging equipment and to oversee the rigging of all loads.

9. Ensure that all parties understand the hoisting operations as planned, including the path of travel of all hoisted loads.
 10. Determine if outside factors, such as weather, will interfere with the hoisting operations.
 11. Ensure that tag lines or other methods are used to maintain complete control of the load at all times.
 12. Ensure that persons who are not involved in hoisting operations are not in the path of travel or otherwise endangered by hoisted loads.
 13. Ensure that the signal person(s) is properly qualified and that the chosen signaling system is appropriate and adequate for the job.
- d. The Crane Operator has the overall responsibility for the lift. Supervisors should never be able to override an operator's decision to stop a lift. If an operator does stop a lift, a full review of all parameters shall be undertaken before operations are resumed.

JOHN J. BELIVEAU
Chief, Facilities Management Service

ATTACHMENTS

A – Crane Permit

Crane Permit

Description of Proposed Crane Work: (Include # of items to be picked and expected # of days and location)			
Proposed date for lift start:		Expected completion date:	
1. Crane Information			
Make:		Model:	
Capacity (tons):			
Total Boom Length:		Will Jib Be Used: (yes or no)	
Jib Length:			
Maximum Boom Length Required:		Maximum pick Radius Required:	
2. Load information			
Description of Maximum load (include Dimensions):			
Weight of Max Load:		How was load determined:	
3. Rigging Information			
List all rigging components (Including number, type, size, capacity, etc.) Note – Anti-Two Block device is required:			
Weight of Line, Block & All Rigging:			
4. Total Gross Load		5. “Worst Case” Lift Scenario	
a) Weight of Max Load:		a) Maximum Pick Radius:	
b) Weight of Line, Block & All Rigging:		b) Total Gross Load:	
c) Safety Factor Added Weight:		c) Crane Chart Capacity at Max Pick Radius:	
d) Total Gross Load:		d) % of Crane Capacity (b/c):	
6. Critical Pick Evaluation			
a) Will crane need to “walk” with loads?		_____ Yes	_____ No
b) Will pick require more than one crane?		_____ Yes	_____ No
c) Will pick be made over occupied building or facility?		_____ Yes	_____ No
d) Does “worst case” lift scenario exceed 75% of crane capacity (5d)?		_____ Yes	_____ No
If the answer to any of the above is “yes” then this is a critical lift that will require additional information and the signature of a licensed professional engineer.			
7. Crane Location Information			
a) Will crane pick affect pedestrian or vehicular traffic? If “yes”, a traffic control plan must be submitted.		_____ Yes	_____ No
b) Are there overhead power lines or other hazards in the lift area?		_____ Yes	_____ No
c) Will load or any part of the crane be over or within 15 feet of electrical lines, pipes process systems or operating equipment?		_____ Yes	_____ No
d) Will crane height exceed 120 feet? If “yes” the crane must have a light beacon at the top.		_____ Yes	_____ No
e) Will crane height exceed 200 feet? If “yes” the FAA must be notified at least 30 days prior.		_____ Yes	_____ No
8. Additional Information (All must be provided)			
a) Plot plan showing crane location, adjacent structures, roadways, utilities, etc. within the swing radius.			
b) Scale elevation sketch of drawing showing crane location, adjacent structures and load.			
c) Applicable crane load charts.			
d) Valid crane operators’ license.			
e) Valid third party annual inspection certificate.			
Contractor Signatures		VA Signatures	
Certified Crane Operator _____		VA Safety Official _____	
OSHA Competent Person _____		VA Project Manager _____	

